IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: William A. Pearlman and Asad Islam

Application No.:   10/747,870   Group Art Unit: 2621

Filed: December 29, 2003   Examiner: N/A.

Confirmation No.:   2827

Title: AN EMBEDDED AND EFFICIENT LOW-COMPLEXITY
HIERARCHICAL IMAGE CODER AND CORRESPONDING
METHODS THEREFOR

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INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Information Disclosure Statement is submitted:

[ ]   under 37 CFR 1.129(a), or
         (First/Second submission after Final Rejection)

[X]   under 37 CFR 1.97(b), or
        (Within any one of the following time periods: three months of filing national application (other than a CPA) or date of entry of the national stage in an international application; or before the mailing date of a first office action on the merits in a non-provisional application, including a CPA, or a Request for Continued Examination).

[ ]   under 37 CFR 1.97(c) together with either:

    [ ]   a Statement under 37 CFR 1.97(e), as checked below, or

    [ ]   a $180.00 fee under 37 CFR 1.17(p), or
    (After the 37 CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first)

[ ]   under 37 CFR 1.97(d) together with:

    [ ]   a Statement under 37 CFR 1.97(e), as checked below, and

    [ ]   a $180.00 fee under 37 CFR 1.17(p), or
    (Filed after final action or notice of allowance, whichever occurs first, but on or before payment of the issue fee)

[ ]   under 37 CFR 1.97(i):
        Applicant requests that the IDS and cited reference(s) be placed in the application filewrapper.
        (Filed after payment of issue fee)

Statement Under 37 CFR 1.97(e)

[ ]   Each item of information contained in this Information Disclosure Statement was first cited in
        any communication from a foreign patent office in a counterpart foreign application not more
        than three months prior to the filing of this Information Disclosure Statement; or

[ ]   No item of information contained in this Information Disclosure Statement was cited in a
        communication from a foreign patent office in a counterpart foreign application, and, to the
        knowledge of the undersigned, after making reasonable inquiry, no item of information contained
        in the information disclosure statement was known to any individual designated in 37 CFR
        1.56(c) more than three months prior to the filing of this Information Disclosure Statement.

Statement Under 37 CFR 1.704(d)   (Patent Term Adjustment)
                                    Applies to original applications (other than design) filed on or after May 29, 2000

[ ]   Each item of information contained in the Information Disclosure Statement was cited in a
        communication from a foreign patent office in a counterpart application and this communication
        was not received by any individual designated in § 1.56(c) more than thirty days prior to the
        filing of the Information Disclosure Statement.

[X]   Enclosed herewith is form PTO-1449:

        [X]   Copies of the cited references are enclosed.

                [X]   Since this application was filed after June 30, 2003, copies of issued U.S. patents
                        and published U.S. applications are not required and are not being provided.

        [X]   Copies of the cited references are enclosed except those entered in prior application, U.S.
                Application No. 09/489,922, now U.S. Patent No. 6,671,413 to which priority under 35
                U.S.C. 120 is claimed. A copy of reference AT is not available.

        [ ]   The listed references were cited in the enclosed International Search Report in a
                counterpart foreign application.

        [ ]   The "concise explanation" requirement (non-English references) for reference(s) [   ]
                under 37 CFR 1.98(a)(3) is satisfied by:

                [ ]   the explanation provided on the attached sheet.

                [ ]   the explanation provided in the Specification.

                [ ]   submission of the enclosed International Search Report.

                [ ]   submission of the enclosed English-language version of a foreign Search Report
                        and/or foreign Office Action.

                [ ]   the enclosed English language abstract.

[ ]   Applicant requests that the following non-published pending applications be considered:

Examiner's
Initials

_____   U.S. Patent Application No. [   ], by [inventor(s)], filed [   ], Docket No.: [   ]

_____   U.S. Patent Application No. [   ], by [inventor(s)], filed [   ], Docket No.: [   ]

_____   U.S. Patent Application No. [   ], by [inventor(s)], filed [   ], Docket No.: [   ]

_____   _____
Examiner   Date

[ ]   A copy of each above-cited application, including the current claims, is enclosed.

[ ]   A copy of each above-cited application, including the current claims, is enclosed, except
       those entered in prior application, U.S. Application No. [   ], to which priority under
       35 U.S.C. 120 is claimed.

The Examiner is requested to return a copy of the above list of pending applications indicating which
references were considered with the next office communication.

It is requested that the information disclosed herein be made of record in this application.
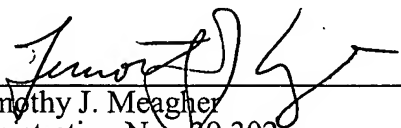

Method of payment:

[ ]   A check for the fee noted above is enclosed, or the fee has been included in the check with the
       accompanying Reply. A copy of this Statement is enclosed.

[ ]   Please charge Deposit Account 08-0380 in the amount of $[   ]. A copy of this Statement is
       enclosed.

[X]   Please charge any deficiency in fees and credit any overpayment to Deposit Account 08-0380.

                        Respectfully submitted,

                        HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

                        By _____
                        Timothy J. Meagher
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Concord, MA 01742-9133
Dated: 8/25/04

PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 3660.1000-001		APPLICATION NO. 10/747,870	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION August 25, 2004 (Use several sheets if necessary)		FIRST NAMED INVENTOR William A. Pearlman		FILING DATE December 29, 2003	
		EXAMINER N/A.	CONFIRMATION NO. 2827		GROUP 2621

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
	AA	5,729,691	03/1998	Agarwal
	AB	5,748,116	05/1998	Chui, *et al.*
	AC	5,748,786	05/1998	Zandi, *et al.*
	AD	5,764,807	06/1998	Pearlman, *et al.*
	AE	5,959,560	09/1999	Said, *et al.*
	AF	6,266,450	07/2001	Yip, *et al.*
	AG	6,345,126 B1	02/2002	Vishwanath, *et al.*
	AH	6,356,665 B1	03/2002	Lei, *et al.*
	AI	6,359,928 B1	03/2002	Wang, *et al.*
	AJ	6,381,280 B1	04/2002	Lynch, *et al.*
	AK			
	AA2			
	AB2			
	AC2			
	AD2			
	AE2			
	AF2			
	AG2			
	AH2			
	AI2			
	AJ2			
	AK2			
	AA3			
	AB3			
	AC3			

EXAMINER	DATE CONSIDERED

PTO-1449 REPRODUCED	ATTORNEY DOCKET NO. 3660.1000-001	APPLICATION NO. 10/747,870
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OTHER DOCUMENTS *(Including Author, Title, Date, Pertinent Pages, Etc.)*

	AR	Amir Said and William A. Pearlman, "The Precedence of the Work of Said and Pearlman over Ricoh's CREW," (http://www.cipr.rpi.edu/research/SPIHT/spiht7.html).
	AS	Shapiro, J.M., "Embedded Image Coding Using Zerotrees of Wavelet Coefficients", IEEE Trans. on Signal Processing, 41(12): 3445-3462 (December 1993).
	AT	Amir Said and William A. Pearlman, "An Improved Zero-tree Method for Image Compression", IPL TR-122, ECSE Dept., Rensselaer Polytechnic Inst., Troy, N.Y. (November 1992)
	AU	Amir Said and William A. Pearlman, "Image Compression Using the Spatial-Orientation Tree", IEEE Int. Symposium on Circuits and Systems, Chicago, IL, pp. 279-282 (May 1993).
	AV	Amir Said and William A. Pearlman, "A New, Fast and Efficient Image Codec Based on Set Partitioning in Hierarchical Trees", IEEE Trans. on Circuits and Systems for Video Technology, Vol. 6(3): 243-250 (June 1996).
	AW	Amir Said and William A. Pearlman "Low-Complexity Waveform Coding via Alphabet and Sample-Set Partitioning", Visual Communications and Image Processing, *Proc. SPIE* 3024: 25-37 (February 1997)
	AX	Andrew, J., "A Simple and Efficient Hierarchical Image Coder," CIP 97, IEEE Int'l Conf. on Image Proc. 3: 658, Paper No. 573 (1997).
	AY	Shen-En Qian, "A Fast Wavelet-Based Image Codec Using Modified Zerotrees and a Multi-Level Lookup Table," EDICS Number 1.1 (Coding), IP-1720 (http://engine.ieee.org) (1997).
	AZ	Eastman, J, *et al.*, "A General Purpose, Expandable Processor For Real-Time Computer Graphics," Computers and Graphics, Vol. 1(1): 73-77 (1975).
	AR2	Lu, J., *et al.*, "Comparative Study of Wavelet Image Coders," *Opt. Eng.* 35(9): 2605-2619 (1996).
	AS2	Rao, R.P. and W.A. Pearlman, "On Entropy of Pyramid Structures," IEEE Transactions on Information Theory, 37(2): 406-413 (March 1991).
	AT2	Rao, R.M., "Wavelet Transforms: Indroduction to Theory and Applications", pp 149-166 (1998).
	AU2	A.S. Lewis and G. Knowles, "Image Compression Using the 2-D Wavelet Transform", IEEE Transactions on Image Processing, Vol. 1(2): 244-249 (1992).

EXAMINER	DATE CONSIDERED